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Assistant Commissioner for Patents Washington, DC 20231

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### Patent Number:

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#### Barclay

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[45] Date of Patent: \* Aug. 23, 1994

gae", p. 623, col. 2, abstract no. 193025d, 1989, Chemi-

[54] FOOD PRODUCT HAVING HIGH CONCENTRATIONS OF OMEGA-3 HIGHLY UNSATURATED FATTY ACIDS

[75] Inventor: William R. Barclay, Boulder, Colo.

[73] Assignee: OmegaTech Inc., Boulder, Colo.

[\*] Notice: The portion of the term of this patent subsequent to Jul. 14, 2009 has been

disclaimed.

[21] Appl. No.: 911,760

[22] Filed: Jul. 10, 1992

#### Related U.S. Application Data

[60] Division of Ser. No. 580,778, Sep. 11, 1990, Pat. No. 5,130,742, which is a continuation-in-part of Ser. No. 439,093, Nov. 17, 1989, abandoned, which is a continuation-in-part of Ser. No. 241,410, Sep. 7, 1988, abandoned.

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#### ABSTRACT

Cambridge University Press).

A process for the heterotrophic or predominantly heterotrophic production of whole-celled or extracted microbial products with a high concentration of omega-3 highly unsaturated fatty acids, producible in an aerobic culture under controlled conditions using biologically pure cultures of heterotrophic single-celled fungi microorganisms of the order Thraustochytriales. The harvested whole-cell microbial product can be added to processed foods as a nutritional supplement, or to fish and animal feeds to enhance the omega-3 highly unsaturated fatty acid content of products produced from these animals. The lipids containing these fatty acids can also be extracted and used in nutritional, pharmaceutical and industrial applications.

10 Claims, 9 Drawing Sheets

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